AMENDMENTS TO THE CLAIMS:

Without prejudice, this listing of claims will replace all prior versions and listings of the claims in the present application:

LISTING OF CLAIMS:

1-26. (Canceled).

27. (Currently Amended) A resonator comprising:

a spring-mass mechanism[[,]] having[[:]] an effective mechanical stiffness[[;]] ~~and~~, an effective mechanical mass[[;]], and ~~defined by~~ a geometry that defines the effective mechanical stiffness and mass;

wherein the geometry is ~~and the effective mechanical mass of the spring-mass mechanism are simultaneously~~ defined by application of a fabrication process to a constituent material[[;]], and

wherein the geometry is ~~defined~~ such that ~~variations in the effective mechanical stiffness of the spring-mass mechanism are compensated by proportional changes in the effective mechanical mass of the spring-mass mechanism whereby~~ one or more variations of the fabrication process to the constituent material results in little change to a ratio ~~defined by a change in~~ of the effective mechanical stiffness ~~and a change in~~ to the effective mechanical mass.

28. (Previously Presented) The resonator of claim 27 wherein the geometry of the spring-mass mechanism comprises one or more voids formed in a length of the spring-mass mechanism.

29. (Previously Presented) The resonator of claim 27 wherein the geometry of the spring-mass mechanism comprises an outer edge having a plurality of indentations, the plurality of indentations having the effect of increasing a surface area of the outer edge that is exposed to the fabrication process.

30. (Previously Presented) The resonator of claim 27 wherein the spring-mass mechanism includes at least one mass structure that is formed integral to the spring-mass mechanism.

31. (Previously Presented) The resonator of claim 30 wherein at least one of the mass structures comprises one or more voids formed in a body of the at least one mass structure.

32. (Previously Presented) The resonator of claim 30 wherein at least one of the mass structures comprises an outer edge having a plurality of indentations, the plurality of indentations having the effect of increasing a surface area of the outer edge that is exposed to the fabrication process.

33. (Previously Presented) The resonator of claim 32 wherein the at least one of the mass structures further comprises one or more voids formed respectively in a body of the at least one of the mass structure.

34. (Previously Presented) The resonator of claim 27 wherein the spring-mass mechanism includes a plurality of mass structures that are formed integral to the spring- mass mechanism.

35. (Previously Presented) The resonator of claim 34 wherein at least one of the plurality of mass structures includes one or more voids formed in a body of the mass structure.

36. (Previously Presented) The resonator of claim 34 wherein at least one of the plurality of mass structures includes an outer edge having a plurality of indentations, wherein the plurality of indentations having the effect of increasing a surface area of the outer edge that is exposed to the fabrication process.

37. (Previously Presented) The resonator of claim 36 wherein at least one of the plurality of mass structures further includes one or more voids formed in a body of the mass structure.

38. (Previously Presented) The resonator of claim 27 wherein the spring-mass mechanism includes a plurality of spring structures that are formed integral to the spring-mass mechanism.

39. (Previously Presented) The resonator of claim 38 wherein at least one of the plurality of spring structures includes one or more voids formed in a body of the spring structure.

40. (Previously Presented) The resonator of claim 38 wherein at least one of the plurality of spring structures includes an outer edge having a plurality of indentations, and wherein the plurality of indentations having the effect of increasing a surface area of the outer edge that is exposed to the fabrication process.

41. (Previously Presented) The resonator of claim 27 wherein the geometry of the spring-mass mechanism comprises:

one or more voids formed in a length of the spring-mass mechanism; and

an outer edge having a plurality of indentations, the plurality of indentations having the effect of increasing a surface area of the outer edge that is exposed to the fabrication process.

42. (Previously Presented) The resonator of claim 41 wherein the spring-mass mechanism includes at least one mass structure that is formed integral to the spring-mass mechanism.

43. (Previously Presented) The resonator of claim 42 wherein at least one of the mass structures comprises one or mote voids formed in a body thereof.

44. (Previously Presented) The resonator of claim 42 wherein at least one of the mass structures comprises an outer edge having a plurality of indentations, the plurality of indentations having the effect of increasing a surface area of the outer edge that is exposed to the fabrication process.

45. (Previously Presented) The resonator of claim 44 wherein the at least one of the mass structures further comprises one or more voids formed in a body of the at least one of the mass structure.